

AK

Notice of Allowability

Application No.

10/728,228

Applicant(s)

MAUER ET AL.

Examiner

Art Unit

Bryan Bui

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/3/03.
2. ☒ The allowed claim(s) is/are 1-25.
3. ☒ The drawings filed on 20 July 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-25 have been examined and allowed over the prior art of record.
2. The following is an examiner's statement of reasons for allowance: ✓

The prior art of record does not teach or suggest the claimed combination as recite in the provided method, apparatus, programmable logic device claims, particularly requires the limitations in combination: wherein said plurality of data samples is processed such that a set of two or more adjacent data samples is processed together, wherein a number of elements in said set corresponds to said oversampling rate; processing said plurality of first results over time and generating a plurality of second results, wherein each of said plurality of first results is processed with others of said plurality of first results such that a number of said plurality of second results corresponds to said oversampling rate; and analyzing said plurality of second results and selecting an alignment of said plurality of data samples according to one of said plurality of second results (claim 1); a first plurality of processing elements, coupled to said oversampler, each configured to process, respectively, a set of two or more adjacent data samples of said plurality of data samples and to generate a plurality of first results, wherein a number of elements in said set corresponds to said oversampling rate; a second plurality of processing elements, coupled said first plurality of processing elements, configured to process said plurality of first results over time and to generate a plurality of second results, wherein each of said plurality of first results is processed with others of said plurality of first results such that a number of said plurality of second

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results corresponds to said oversampling rate; and a comparator element, coupled to said oversampler and said second plurality of processing elements, configured to analyze said plurality of second results and to select an alignment of said plurality of data samples according to one of said plurality of second results (claim 9); wherein said plurality of data samples is processed such that a set of two or more nearby data samples is processed together, wherein a number of elements in said set corresponds to said oversampling rate, and wherein said set is processed according to mirror axis of said set; processing said plurality of first results over time and generating a plurality of second results, wherein each of said plurality of first results is processed with others of said plurality of first results such that a number of said plurality of second results corresponds to said oversampling rate; and analyzing said plurality of second results and selecting an alignment of said plurality of data samples according to one of said plurality of second results (claim 19); a first plurality of processing elements, coupled to said oversampler, each configured to process, respectively, a set of two or more adjacent data samples of said plurality of data samples and to generate a plurality of first results, wherein a number of elements in said set corresponds to said oversampling rate, and wherein said set is processed according to a mirror axis of said set; a second plurality of processing elements, coupled said first plurality of processing elements, configured to process said plurality of first results over time and to generate a plurality of second results, wherein each of said plurality of first results is processed with others of said plurality of first results such that a number of said plurality of second results corresponds to said oversampling rate; and a comparator element, coupled to said

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oversampler and said second plurality of processing elements, configured to analyze said plurality of second results and to select an alignment of said plurality of data samples according to one of said plurality of second results (claim 20); a first plurality of processing elements, coupled to said oversampler, each configured to process, respectively, a set of two or more adjacent data samples of said plurality of data samples and to generate a plurality of first results, wherein a number of elements in said set corresponds to said oversampling rate; a second plurality of processing elements, coupled said first plurality of processing elements, configured to process said plurality of first results over time and to generate a plurality of second results, wherein each of said plurality of first results is processed with others of said plurality of first results such that a number of said plurality of second results corresponds to said oversampling rate; and a comparator element, coupled to said oversampler and said second plurality of processing elements, configured to analyze said plurality of second results and to select an alignment of said plurality of data samples according to one of said plurality of second results (claim 24); a first plurality of processing elements, coupled to said oversampler, each configured to process, respectively, a set of two or more nearby data samples of said plurality of data samples and to generate a plurality of first results, wherein a number of elements in said set corresponds to said oversampling rate, and wherein said set is processed according to a mirror axis of said set; a second plurality of processing elements, coupled said first plurality of processing elements, configured to process said plurality of first results over time and to generate a plurality of second results, wherein each of said plurality of first results is processed with others of said

plurality of first results such that a number of said plurality of second results corresponds to said oversampling rate; and a comparator element, coupled to said oversampler and said second plurality of processing elements, configured to analyze said plurality of second results and to select an alignment of said plurality of data samples according to one of said plurality of second results (claim 25).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan Bui whose telephone number is 571-272-2271. The examiner can normally be reached on M-Th from 7am-4pm, and Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BB

03/08/2005

BRYAN RUI
PRIMA...INER

